

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

1. (Previously presented) A method implemented in a computer for automatically matching graphic elements constituting given graphic chains automatically to phonetic elements constituting corresponding phonetic chains, said method including the following steps:

entering global transcriptions of said graphic chains into said phonetic chains into a database accessible by said computer,

estimating and storing in said database first probabilities of elementary transcriptions of graphic elements into respective phonetic elements,

for each transcription of a given graphic chain with M graphic elements into a corresponding phonetic chain with N phonetic elements, determining by MxN iterations second probabilities of MxN second transcriptions of M graphic chains resulting from M successive concatenations of 1 to M graphic elements into N phonetic chains resulting from N successive concatenations of 1 to N phonetic elements, each second probability of a second transcription depending on a preceding estimated first probability of last graphic and phonetic element of said second transcription and depending on the highest of three respective second probabilities determined by preceding iterations, M and N being integers, , and

establishing and storing a link between last elements of the graphic chain and phonetic chain of each second transcription and last elements of the graphic chain and phonetic chain of the transcription relating to said highest of said three respective second probabilities in order for links established in an MxN matrix relative to said second probabilities to constitute a single path between last and first pairs of graphic and phonetic elements of said matrix in order to segment said given graphic chain into graphemes corresponding to respective phonemes segmenting the corresponding

phonetic chain and to store the matches between said graphemes and phonemes in said database, the number of graphic elements in a grapheme being identical to the number of phonetic elements in the corresponding phoneme, in order for any new graphic chain to be transcribed automatically into a phonetic chain segmented into phonemes by means of the stored matches.

2. (Previously presented) A method according to claim 1, wherein said respective first probability for the determination of a second probability relating to a second transcription of a graphic chain concatenating  $m$  graphic elements into a phonetic chain concatenating  $n$  phonetic elements, with  $1 \leq m \leq M$  and  $1 \leq n \leq N$ , relates to the last elements in the graphic chain with  $m$  graphic elements and the phonetic chain with  $n$  phonetic elements.

3. (Previously presented) A method according to claim 1, wherein said three respective second probabilities determined beforehand for said second transcription of the graphic chain with  $m$  graphic elements into the phonetic chain with  $n$  phonetic elements respectively relate to a second transcription of a graphic chain with  $m-1$  graphic elements into the phonetic chain with  $n$  phonetic elements, a second transcription of the graphic chain with  $m$  graphic elements into a phonetic chain with  $n-1$  phonetic elements and a second transcription of the graphic chain with  $m-1$  graphic elements into the phonetic chain with  $n-1$  phonetic elements.

4. (Previously presented) A method according to claim 1, comprising estimating other first probabilities of transcriptions of each of said graphic elements respectively into said phonetic elements as a function of the ranks of said phonetic elements placed in said given phonetic chains that were segmented into phonemes, in order again to determine second probabilities of  $M \times N$  second transcriptions of each transcription of a given graphic chain with  $M$  graphic elements into a corresponding phonetic chain with  $N$  phonetic elements and to establish a corrected path linking the last pair to the first pair in a new  $M \times N$  matrix of second probabilities.

5. (Previously presented) A method according to claim 1, wherein said new graphic chain is being entered on a terminal keyboard and said phonetic chain segmented into phonemes by means of said stored matches is used for orthographic correction of said new graphic chain entered.

6. (Previously presented) A method according to claim 1, wherein said phonetic chains are phonetically readable by any person who is not an expert in phonetics, and said new graphic chain is automatically transcribed into a phonetic chain segmented into phonemes that can be read by any person who is not an expert in phonetics by means of stored matches to be included in a short message.

7. (Currently amended) A computer readable storage medium or computer readable storage device storing computer readable indicia for causing program adapted to be executed—in a computer ~~for~~ to automatically matching graphic elements constituting given graphic chains automatically to phonetic elements constituting corresponding phonetic chains after initially entering of global transcriptions of the graphic chains into the phonetic chains into a database accessible by the computer and after estimating and storing in the database first probabilities of elementary transcriptions of graphic elements into respective phonetic elements, said program indicia including program instructions which for causing the computer to execute the following steps when the program storage medium or storage device is loaded into and executed in the computer:

for each transcription of a given graphic chain with M graphic elements into a corresponding phonetic chain with N phonetic elements, determining second probabilities of MN second transcriptions of M graphic chains successively concatenating the M graphic elements into N phonetic chains successively concatenating the N phonetic elements, each as a function of a respective first probability and of the highest of three respective second probabilities determined beforehand, and

establishing and storing a link between the last elements of the graphic and phonetic chains of each second transcription and the last elements of the graphic and

phonetic chains of the transcription relating to the highest of the three respective second probabilities in order for the links established in an  $M \times N$  matrix relative to the second probabilities to constitute a single path between last and first pairs of graphic and phonetic elements of the matrix in order to segment the given graphic chain into graphemes corresponding to respective phonemes segmenting the corresponding phonetic chain and to store the matches between the graphemes and phonemes in the database, the number of graphic elements in a grapheme being identical to the number of phonetic elements in the corresponding phoneme, in order for any new graphic chain to be transcribed automatically into a phonetic chain segmented into phonemes by means of the stored matches.